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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/638,150 | 08/15/2000 | James L. Richards | 28549-165554 | 1601 |

26694 7590 08/02/2004

VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP
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WASHINGTON, DC 20043-9998

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| EXAMINER |
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LUGO, DAVID B

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| ART UNIT | PAPER NUMBER |
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2637

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/638,150 | RICHARDS ET AL. | |
| | Examiner | Art Unit | |
| | David B. Lugo | 2634 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/00, 1/28/2, 1/29/2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. In the information disclosure statements filed on 9/29/00 and 1/29/02, all non-patent literature documents (AR and A18-A28, respectively) have been crossed off, as copies were unavailable to the examiner. All U.S. Patents cited have been considered. Further, all references cited in the IDS filed 1/28/02 have been crossed off, as the entries are the same as those cited in the IDS filed on 1/29/02. It is noted that the application number on the second page of the IDS filed on 1/28/02 is listed as 09/638,192.

Specification

2. The disclosure is objected to because of the following informalities:
- a. Page 1, all attorney docket numbers should be replaced with corresponding U.S. Patent application numbers, and additionally, U.S. Patent numbers where appropriate.
 - b. Page 27, line 22, "now U.S. Patent No. 6,421,389" should be added after "Receiver,".
- Appropriate correction is required.

Claim Objections

3. Claims 3, 4, 17 and 18 are objected to because of the following informalities:
- a. Claim 3, recites the limitation "said pulse". However, it is not clear which "pulse" is being referred to, as a "pulse" is recited in claim 1, line 7 and in claim 2, line 2.
 - b. Claim 4, recites the limitation "said pulse". However, it is not clear which "pulse" is being referred to, as a "pulse" is recited in claim 1, line 7 and in claim 2, line 2.

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c. Claim 17, recites "said pulse" in line 1. However, it is not clear which "pulse" is being referred to, as a "pulse" is recited in claim 15, line 7 and in claim 16, line 2.

d. Claim 18, recites "said pulse" in line 1. However, it is not clear which "pulse" is being referred to, as a "pulse" is recited in claim 15, line 7 and in claim 16, line 2.

Appropriate correction is required.

Double Patenting

4. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

5. Claims 1-28 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-28 of copending Application No. 09/638,150. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

6. Claims 1-14 of the instant application include the same method steps as those of claims 1-14 of the copending '150 application and are thus coextensive in scope. The preamble is not considered to change the scope of the claims.

7. Claims 15-28 of the instant application are substantially identical to claims 15-28 of the copending '150 application.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Barrett U.S.

Patent 6,160,802 (submitted by applicant).

10. Regarding claims 1 and 15, Barrett discloses an impulse transmission system comprising a time modulated ultra wideband transmitter (Fig. 1A) and receiver (Fig. 1B) which employ a time-hopping code (Fig. 2), where pulse positioning over time is specified in accordance with a time layout about a time reference (Fig. 3), pulses are mapped over the time layout based on the time hopping code, and a pulse can be placed at any location within the time layout in accordance with the generated code.

11. Regarding claims 2 and 16, the code of Figure 2 depicts the position of pulses relative to other pulses.

12. Regarding claims 3 and 17, the reference pulse may be considered to be a pulse in a preceding frame.

13. Regarding claims 4 and 18, the reference pulse may be considered to be a pulse in a succeeding frame.

14. Regarding claims 5 and 19, the time reference is considered to be a fixed time reference.

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15. Regarding claims 6-8 and 20-22, the time hopping code comprises the autocorrelation properties and cross-correlation properties depicted in Figures 8 and 9, respectively.
16. Regarding claims 9 and 23, Barrett further discloses the use of Quadratic Congruence codes and Hyperbolic codes (col. 6, lines 12-18).
17. Regarding claims 10 and 24, the time layout is partitioned into frames (superframes of Fig. 3).
18. Regarding claims 11 and 25, the frames (superframes) are divided into subframes (frames of Fig. 3).
19. Regarding claims 12 and 26, the frames are comprised of a plurality of smaller components (subframes of Fig. 3).
20. Regarding claims 13 and 27, the subframes are further partitioned (see Fig. 13).
21. Regarding claims 14 and 28, the time layout is considered to be a delta value layout.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David B. Lugo** whose telephone number is **(703) 305-0954**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Jay Patel**, can be reached at **(703) 308-7728**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

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or faxed to:


(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

dl

7/21/04


KHAI TRAN
PRIMARY EXAMINER 7/21/04

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